

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001326**Date Inspected:** 07-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2359**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** OBG 5CW, South Tower Lift#1, Cross Beam**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Office

Sort and file project documentation.

East Tower Lift #1

Base metal surfaces of the internal double diaphragms 18M, 23M, 28M,& 33M confined space areas were abrasive blasted for VT inspection. SSPC SP-10 not achieved at this time base metal surfaces were marked for grinding operations and MT of arc strikes. ZPMC CWI perform MT operations and verified by Caltrans QA Paul Dawson.

Also concurrent with this inspection exterior surfaces coated with Interzinc 22 were checked for Dry Film Thickness (DFT) and areas of excessive film build as well as low film were marked for amendment.

OBG 5CW

Exterior base metal surfaces were abrasive blasted and chloride testing performed. Chlorides were observed below 10ug/cm, grinding operations were performed and VT was performed by Caltrans QA Dan Hernandez and defective areas mapped. Base metal surfaces were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. Profile amplitude was 66-84um.

Miscellaneous Metal

Base metal surfaces of approximately 133 +- splice plates and three suspender brackets numbering SB16W, SB16E, SB14E were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. Profile amplitude was 68-75um.

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Miscellaneous Metal

Base metal surfaces of two suspender brackets and numerous splice plates were de-greased and water washed in preparation of abrasive blast operations.

Cross Beam #3

Relocated from the trial assembly area to blast shop #1 for amendment and repairs to extensively damaged existing coatings, due from trial assembly operations and welding and fabrication.

OBG 4AE/4BE

Abrasive blasted existing damaged coatings to base metal exhibiting an SSPC SP-10 condition, to top deck and cross beam connection area and bottom plate. No coating was applied to blasted base metal surfaces due to non conforming ambient conditions.

Note: All inspections were performed jointly when possible with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley. International Protective Coatings technical service representatives Mr.Peng ZiLi and Mr. Alpha Chen were available for ZPMC consult.

Trial Assembly Area

Caltrans QA Lumley observed forklift operator use forklift for relocation of galvanized handrails near Lift 4E by pushing and skidding railings along concrete and over steel plates and smashing them into other adjacent steel structures, thus bending handrails and scraping galvanized surfaces creating damages. Thusfar Caltrans has received no Notice of Inspections from ZPMC for any galvanizing processes or lots of materials per Section 55 and ASTM D 123.

Summary of Conversations:

International Protective Coatings technical service representative Mr. Alpha Chen informed Caltrans QA Lumley that the interior surfaces of East Tower Lift #1 are not being amended nor properly inspected by ZPMC QC personnel. Mr. Chen stated that ZPMC are not identifying areas such as mud cracks, low DFT as well as excessive DFT on surfaces coated with Interzinc 22 as well as surfaces which the base metal is still exposed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang. (858) 699-9549, who represents the Office of Structural Materials for your project.

Inspected By:	Lumley,James
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Quality Assurance Inspector

Reviewed By:	Carreon,Albert
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QA Reviewer
